

Instrument

FOSLIM optical silt measuring instrument

The FOSLIM optical silt measuring system is an instrument designed to measure concentrations of suspended particles. The measuring principle is based on the attenuation of light passing through the measuring volume. The light is absorbed and scattered on suspended silt particles. The output is presented as an analogue voltage.

The FOSLIM system comprises a probe and a control unit (the same model as used together with the OSLIM instrument). The control unit provides the system with power, controls and switches for setting the zero, span, out-of-range detection and analogue output. The FOSLIM probe is to be immersed in the particle suspension. The measuring volume resides between two optical fibre tips.

The measuring volume is illuminated by the one optical fibre and received by the other fibre; the receiving fibre is aligned 'looking' towards the transmitting fibre. The distance between the two opposing fibres is adjustable by the operator to adapt the instrument to a specific measuring range.

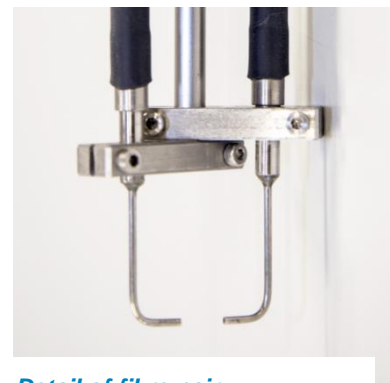
Applications

Fields of application for this instrument are:

- Silt transport studies
- Mud concentration profiling

Features

- Narrow measuring volume
- Limited intrusion on surroundings
- Easy to clean probe parts
- Measuring volume field adjustable
- replaceable fibres
- Electronics insulated from medium
- Pumped flow cell version available



Detail of fibre pair



Control unit

Technical specifications of FOSLIM probe (standard)

Materials	<ul style="list-style-type: none"> • stainless steel support • brass adapter • fibre optics, 1.5 mm OD (2x)
Dimensions	<ul style="list-style-type: none"> • length of probe support: 1.0 m • max. immersion depth: 0.9 m • adapter (on top): 40 x 50 mm (d x l)
Weight	<ul style="list-style-type: none"> • 0.75 kg

Technical specifications of the control unit

Housing	the OSLIM control unit is housed in an IP6x protected aluminium box with separate mains power adapter
Measuring path length	14 mm (standard) adjustable from 0.5 to 14 mm
Range	1 .. 50 g/l (China clay), path length dependable
Zero-stability	< 0.4%/24 hours of full scale
Response	20 ms
Controls	<ul style="list-style-type: none"> • range selector • span and zero setting • overload indicator
Output	analogue voltage, 0-10 VDC
Connectors	<ul style="list-style-type: none"> • output (BNC) • probe socket • mains socket (24 VAC)
Mains adapter	230 VAC/24 VAC
Dimensions	120 x 120 x 100 mm
Weight	1.9 kg



FOSLIM probe with fibre pair

More information:
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